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On June 23 Major O.V.P. Stout was awarded the first:
Cyrus Hall McCormick medal of the American Society of
Agricultural Engineers for exceptional and meritorious
engineering achievement in agriculture. He was chosen for
this honor by a special jury of awards of the Society from
a large number of nominations. The medal was designed by
Fred M. Torrey, a Chicago sculptor, with the cooperation of
Col. O. B. Zimmerman, past president of the Society.

Major Stout's greatest achievement in agricultural
engineering is his extended and successful sponsoring of
the subject as a field worthy of special academic and
professional attention. He was largely responsible for the
introduction of agricultural engineering into the curric-
ulum at the University of Nebraska and for its gradual
development into an independent department of the College
of Engineering. He furnished inspiration for the develop-
ment of its subsequent leaders and to men who carried the
pioneer idea to other States.

As an educator he inspired and showed the possi-
bilities of the profession to his many students, four of
whom have served as presidents of the A.S.A.E. Throughout
his whole busy career as an educator, he found time to
serve in various advisory capacities in engineering
practices. On many drainage, irrigation, and water power
works, he has served as designing and consulting engineer.
In many lawsuits involving technical questions in his
field, he has been an expert witness.

Major Stout was elected to honorary membership in
the A.S.A.E. in 1928 and on June 6 of this year the
University of Nebraska conferred upon him an honorary
doctor's degree in engineering in recognition of his
pioneer work in agricultural engineering and his out-
standing engineering accomplishments.

For the benefit of those who write reports:

Regarding Huxley's style of writing, Nature (London) for May 14, says "The main thing was having clear ideas and trying always to say them in the fewest and most appropriate words. The true man of science has in this respect an initial advantage over other writers, because he starts with a definite statement about something observed which he wishes to convey to his readers in the most direct and effective way."

G. R. Boyd made a trip on June 14, to Peoria, Ill. to inspect the land appraisal work of O. M. Page. Mr. Page has completed this work and has gone to Cairo, Ill. to conduct work on the appraisal of flowage damage in the Bird's Point floodway.

G. R. Shier has been making investigations of the financial conditions of drainage districts in South Carolina, Georgia and Alabama, and is now doing similar work in western Tennessee. Mr. Boyd conferred with him at Memphis, Tenn. regarding this work.

A. H. Senner is conducting experiments at the Annapolis Naval Academy in the use of steam for sterilizing soils for greenhouses. This project is in cooperation with the Navy Department.

On June 6 a delegation of students of Texas A. & M. accompanied by Mr. J. S. Mogford, Associate Professor of Agronomy of that institution visited the Cotton Ginning Laboratory at Stoneville. This group was on a tour of all cotton interests in the United States and abroad.

L. A. Jones, C. E. Ramser and R. W. Baird attended the Third Southwest Soil and Water Conservation Conference held in Fayetteville, Ark. on June 9 and 10. Messrs. Jones and Ramser presented papers on the aims, progress, and results of engineering investigations in soil erosion. Mr. Baird gave a summary of the results obtained at the Tyler station.

Upon leaving Fayetteville Messrs. Jones and Ramser started on a tour of inspection of soil erosion stations located at Guthrie, Okla. and Hays, Kans., Clarinda, Iowa, Bethany, Mo., and La Crosse, Wis.

Terracing experiments on the Guthrie station were given a thorough test by 5.6 inches of rainfall occurring in the first week of June. H. S. Riesbol reports that two inches of precipitation were received during the first 30 minutes of a 3 inch rain falling late in the evening of May 31. Severe erosion occurred on all untterraced areas while all terraces held and did not appear to lose excessive amounts of soil.

The installation of engineering experimental equipment as planned for the period ending July 1, 1932, has been completed at the Bethany station according to A. T. Holman. A farmers' meeting was held at the station on June 16.

R. A. Norton reports that his program of experimental equipment installation was temporarily halted by a heavy rain of about two inches which fell on June 10. Terraces and other engineering works, all newly constructed, withstood the rain with no overtopping or damage.

Installation of all instruments for measuring run-off and soil loss on the La Crosse station has been completed, according to G. E. Ryerson. Eleven terraces and two unterraced plots are equipped for such measurements and will produce valuable results concerning the best methods of terrace design for the rough topography peculiar to this locality.

W. W. McLaughlin left Berkeley May 26 for Washington, D.C. He stopped at Scottsbluff, Nebr., to inspect the soil moisture work in progress under the direction of Leslie Bowen. While in Washington he attended a meeting of the Technical Advisory Sub-Committee on Irrigation, Drainage, and Reclamation of the Land Use Planning Committee, and of the general Land Use Committee. On his return trip he attended the annual meeting of the A.S.A.E. at Columbus, Ohio, and will spend a few days in Utah en route to Berkeley.

Ralph L. Parshall has been granted a public patent on the vortex sand trap and deflector riffle. The sand trap consists of a conical tube laid across the bottom of a channel at an angle of about 45 degrees. The downstream quarter of this tube is open, the top of the opening forming a straight edge, the lower edge of the opening being even with the bottom of the channel. This tube converges toward the back end and the lip of the trap is common with the floor line whose transverse slope to the outlet side is about 1 foot in 24, taken normal to the axis of the channel. The floor is level in the direction of flow. The deflector riffles consist of a series of triangular plates fastened to a smooth, laterally inclined floor just upstream from the vortex tube. The purpose of these riffles is to move the sand carried along the bottom of the channel across to the lower side. An auxiliary channel having a V-shaped bottom serves as a sluiceway to carry the trapped sand down to the exit of the vortex tube. It is believed the device will be useful in trapping sand, silt and other debris from irrigation and power canals and for other purposes.

O. A. Faris submitted a progress report on "The Silt Load of Texas Streams", covering investigations carried on for the past several years in cooperation with the Texas Board of Water Engineers. One of the requirements of a successful storage reservoir supplied by a silt-laden stream is that its useful life be of sufficient length to return the cost plus a reasonable profit. The best basis for estimating the silt load is a long-time record of silt measurements at

or near the reservoir site. Such records are seldom available when a new reservoir is contemplated, and it is rarely practicable to delay construction several years until they can be obtained. Short-time or fragmentary records at the site or records taken in another locality, may lead to serious error. The investigation covered by Mr. Faris' report was inaugurated in 1924 and is still in progress.

M. R. Lewis reports that from an irrigation standpoint the most interesting thing developed on the Pacific Northwest Soil Erosion Experiment Station at Pullman is the marked difference in the run-off (and therefore in rainfall penetration) between plots receiving varying cultural treatments. The results with vegetative covering (sweet clover and grass) and with subsoiling seem to be highly significant. Only very heavy rainfalls produced run-off from the plots with sweet clover and grass and with deep subsoiling whereas even light rains produced run-off from the clean-cultivated plots. Practically no erosion took place on the former but severe erosion on the latter.

J. C. Marr presented a paper entitled "Pumping for Drainage and Supplemental Irrigation" at the meeting of the A.S.A.E. held in Moscow, Idaho, May 23 and 24.

A. A. Young reports that active work was discontinued at the Santa Ana station May 1, completing three years records of use of water by salt grass, tules, wire grass and willow grown in tanks. The crop of salt grass on each tank was cut to determine the ratio of the weight of water absorbed during its growth to the weight of dry matter produced. Numerous samples of soil were taken in different tanks from the surface to below the water table for determination of apparent specific gravity. By use of these results the number of inches of water per foot of soil in each tank will be computed. In order to measure the increase or decrease of soil moisture the percentage of moisture in each foot of soil has been determined on the first of each month throughout the past winter. Tests are now being made to determine the porosity of the soil tested.

L. M. Winsor reports, in connection with his project on Control of Gravel in Open Channels During High Water, it was found that gravel had been reaching the main canal intakes at Nephi, Utah, for the first time in ten years. Gravel which had been washed into the main stream channel below the lower control works during the season of 1931 remained in place until moved down stream by high water this spring. The canal company was attempting to handle the gravel by means of a large force of teams on scrapers but were unable to keep pace with it. Under Mr. Winsor's direction, three men and one team built in four hours, a barrier structure just above the first diversion for irrigation, which it is believed will completely eliminate the flow of gravel for this season. If successful, a permanent control structure will be built at the same site during the summer or early fall of this year.

Leslie Bowen, who is now beginning work at the experiment farm at Scottsbluff, Nebr., reports that the depth of penetration of winter and spring precipitation has not exceeded 2 to 2 1/2 feet. Moisture in the upper 2 1/2 feet averages 17 per cent. From a depth of 2 1/2 to 5 or 6 feet, (the lower limit of the hardpan which underlies all or nearly all the soils in that vicinity) the moisture decreases in some cases to 8 per cent. The hardpan is known locally as "Brule clay" and is from 3 to 12 inches thick. The percentage of moisture in this layer is invariably greater than that in the soils above or below. The soils above are sandy loam, and those below are usually sand. On some of the plats where hardpan is from 3 to 3 1/2 feet thick, the moisture content will reach 25 per cent. It is doubtful if there is much root activity in this stratum.

Lloyd N. Brown reports in connection with his project on irrigation of cotton that the cotton plots near Firebaugh, in the San Joaquin Valley, Calif., were planted May 1. Six irrigation treatments are to be studied: (1) always ample moisture; (2) allowing plants to wilt before each irrigation; (3) ample moisture early but none late; (4) no water until plants show a wilt but ample from then on; (5) local field practice - three or four irrigations; (6) no water added after seeding. It is very difficult to secure a good stand of cotton on the heavy soils following a pre-irrigation, due to the fact that the sticky soil does not cover the seed well. Indications are that cotton may be planted in dry soil and irrigated up. The present accepted practice of irrigating cotton is to withhold water early in the growing season. Several plots will be irrigated at varying frequencies to test out this theory. A similar series of irrigation frequency plots will be run at a site about 25 miles northwest of Firebaugh near Los Banos, on light soil, so as to get a comparison with the heavy soils at Firebaugh.

John T. Bowen attended the spring meeting of the American Society of Refrigeration Engineers held at Boston June 9 to 11, inclusive.

R. B. Gray left Washington on June 2 for an extended trip to Georgia, Alabama, Louisiana, Texas, Colorado, Iowa and Ohio, for the purpose of inspecting investigational work of the Division of Mechanical Equipment. Mr. Gray will also attend the A.S.A.E. convention at Columbus, Ohio.

G. A. Cumings and A. L. Sharp were at Greenville, Mich., on June 13, in connection with planting operations for the potato fertilizer placement experiment. Mr. Cumings inspected similar experiments at Cranbury, New Jersey and Onley, Virginia on his return to Washington. Mr. Sharp proceeded to Toledo, Ohio, where he is making draft tests on the experimental potato planter adjusted for various placements of the fertilizer with respect to the seed. The corn borer control unit under the direction of R. M. Merrill is furnishing the

necessary instruments and equipment and is assisting in the tests.

W. H. Redit returned to Washington on June 8 from a trip in the Southeastern States where he was making fertilizer applications as a side dressing included in the cooperative fertilizer placement experiments with cotton.

W. M. Hurst left for Columbus, Ohio, on June 18 to attend the A.S.A.E. convention. Mr. Hurst is chairman of the committee on artificial drying of forage crops and will present a number of exhibits of driers and samples of artificially dried forage crops.

R. M. Merrill visited manufacturers of corn pickers at Oskaloosa, Iowa; Moline, Ill.; and Chicago, Ill., during the week beginning May 23. He also investigated an experimental corn picker at Fort Dodge, Iowa.

Frank Irons is assisting Dr. Batchelder at Berkley, Mass., in preparing apparatus for application of spray materials for corn borer control.

According to E. M. Mervine sugar beet crust breaking experimental plots indicate that small seedlings just coming through the crust are seriously harmed by the ordinary harrow and, in order given, are relatively less harmed by a light harrow, rotary hoe, culti packer, and roller of western land roller type, the latter doing practically no harm to the beets.

Field trials with a row blocker, a machine which is limited to the one job of blocking beets, and possibly cotton, indicate its ability to do this job mechanically but gives evidence of having no advantages over the cross blocker. The cross blocker, being an ordinary beet cultivator slightly readjusted, has the decided advantage of being a piece of equipment now found on all beet farms.

S. W. McBirney, who has been assisting with the fertilizer placement experiments on sugar beets, went to Winner, S. Dak., on June 1 for a few days, in connection with grasshopper control work. Cooperating with officials of the Bureau of Entomology Mr. McBirney assisted in assembling and adjusting bait spreaders which are modified end-gate seeders developed in our Toledo shops.

E. D. Gordon has found that in the drying work so far this year the operation cost of evaporating moisture from the forage is 13% less than last year's cost for evaporating moisture in the apron conveyor dryer due chiefly to changes incorporated into the dryer for taking in the heated air from the furnace and in exhausting the moist air. In this year's cost figure the energy required for baling the hay in the Threader press has been included whereas in the drying carried on last season the hay was not baled..

A mobile spraying outfit suitable for use in spraying investigations is being developed at Albany, Ga., by E.M. Dieffenbach. The principal features of the outfit include a truck mounted pump, 300-gallon cypress tank with agitator, pressure regulating valve to control unloading of the pump and a governor for the engine.

D. A. Isler left Presidio on June 11 en route to El Paso for compilation of a project report of the pink bollworm cultural control investigations of 1931.